

ABSTRACT

Communication methods, buffer management methods, communication systems, and communication devices for mobile communications using acknowledgement-based protocols, such as TCP. Communication buffer memory includes free and committed memory, with copies of transmitted messages awaiting acknowledgement stored in committed memory of transmit buffer. Memory controller monitors communication buffer state and, if free memory is less than a memory threshold, controller extracts TCP ACKNUM from a received host message. The TCP ACKNUM acknowledges transmitted message copies having ACKNUMs of lesser ordinality, and memory controller identifies and denominates the committed memory storing acknowledged messages as free memory, potentially avoiding deadlock.